

## SOME NOTES ON THE OLIVIDAE.

BY CHARLES W. JOHNSON.

## II.

## OLIVA VIDUA (Bolten).

*Porphyria vidua* Bolten, Mus. Boltenianum, p. 34, 1798.

*Oliva maura* Lam., Ann. du Mus., XVI, p. 309, 1810.

As in the case of *O. sericea*, both Bolten and Lamarck again refer to the same figures by Martini (Conch. Cab., II, tab. 45, figs. 472, 473). The variation of the species is well shown by Marrat under the name "*mauritiana*" Martini (Sowerby's Thes. Conch., IV, pl. 10, figs. 133-140). The figures referred to by Bolten represent one of the extreme variations. What would probably be considered the normal color is represented by the var. *sepulturalis* Lam. (Marrat, fig. 133). This variety in losing entirely the brown markings becomes the olive-green or yellowish *fenestrata* Bolten, or with the dark brown assuming wide, irregular, longitudinal stripes, the var. *fulminans* Lam., while these stripes suffusing form the dark brownish-black *vidua*. On the other hand there is a tendency for the shells to become gradually lighter in color than *sepulturalis*, such forms representing the var. *macleaya* Duclos (Marrat, fig. 140).

It is this latter variety that leads to what is probably one of the most puzzling groups of shells to define specifically that exists. One cannot realize this difficulty from a few shells which usually fall quite readily into one of the numerous species. With over 200 specimens of the group comprising *vidua*, *tigrina* and *elegans* there are some specimens so intermediate in character as to make it very difficult to draw the line. To unite these, however, upon the character of the shells alone, with the meagre data bearing upon their distribution and the environmental conditions governing variation, would in no way add to our knowledge of the group or aid in its future study. It seems to be the diverging point of a number of species or groups of species, the true relationship of which is at present hard to define.

## OLIVA TIGRINA Lamarck.

*O. tigrina* Lam., Ann. du Mus., XVI, p. 322, 1810 (*non* Meuschen).

? *O. glandiformis* Lam., Ann. du Mus., XVI, p. 317, 1810.

This species is distinguished from *vidua* var. *macleaya* in being less cylindrical in outline with the sutural callus less elevated. The

normal form has maculations or bands of dark brown which often become suffused and cover the entire shell, this extreme variation (var. *fallax* n. var.) masquerading in many collections under the name of *maura*. The usual form of *tigrina* is without the brown bands or maculations, only the small bluish-gray spots showing. In large senile specimens the spots often become obsolete or wanting on the last third of the body whorl. The dark forms figured by Marrat as *glandiformis* (fig. 174), approach closely (as in the case of *elegans*) forms of *funeralis* Lam. The *glandiformis* Lam., if recognizable, would take precedence over *tigrina*, but the figure referred to by Lamarck in Adanson's Hist. Nat. Senegal, pl. 4, fig. 6, is not identifiable.

#### OLIVA BULBOSA (Bolten).

*Porphyria bulbosa* Bolten, Mus. Boltinianum, p. 34, 1798.

*Oliva undata* Lam., Ann. du Mus., XVI, p. 318, 1810.

*Oliva inflata* Lam., l. c., XVI, p. 319, 1810.

This variable species is always readily distinguished by having a heavy callus ridge on the fasciole, independent of the columellar plaits. In other respects many specimens closely resemble the more inflated examples of *tigrina*.

Both Bolten and Lamarck refer to the same figure by Martini (Conch. Cab., II, Tab. 47, figs. 507, 508), which represents specimens having undulating longitudinal stripes of brown. Specimens with only the small uniform bluish-gray spots constitute the var. *inflata* Lam.; when two revolving dark brown bands are present the var. *bicingulata* Lam.; when the bands fuse and cover irregularly the greater portion of the shell they represent the var. *fabagina* Lam. The latter is figured by Marrat as "crassa" Martini. Pure white examples are also frequently observed.

#### OLIVA ELEGANS Lamarck.

*O. elegans* Lam., Ann. du Mus., XVI, p. 312, 1810.

*O. flava* Marrat, Sowerby's Thes. Conch., IV, pl. 11, figs. 156, 157.

*O. infranata* Marrat, l. c., pl. 12, fig. 161.

This species, though smaller, has the more cylindrical form and elevated sutural callus of *vidua*. Light-colored examples with bright salmon-colored fasciole resemble in a general way *variegata* Bolten. It also has a similar range in color to the latter species, and lacks the

dark fulvous and melanic forms of *vidua*. Small, dark forms, on the other hand, are often very close to specimens referable to *funerbralis* Lam. *O. tricolor* Lam. seems to be a good species, and not a variety of *elegans*.

#### OLIVA FUNEBRALIS Lamarck.

This species seem to occupy an intermediate position between *tigrina* and *elegans*. It is beautifully illustrated by Marrat (Thes. Conch., pl. 11, figs. 143-148) under the names of "*leucostoma*" Ducl. and "*labradorensis*" Bolten. The figure cited by Bolten in Lister, tab. 731, fig. 20, is unrecognizable, so that *labradorensis* can fortunately be dropped. The narrower form suggests a probable relationship to the narrow, cylindrical *mustelina* Lam., while the broader form shows a tendency towards the more inflated *dactyliola* Ducl.

#### OLIVA DACTYLIOLA Duclos.

This seems to hold an intermediate position between *funerbralis* and *bulbiformis*, having the spire of the former and outline of the latter.

#### OLIVA BULBIFORMIS Duclos.

This species is distinguished from the preceding in having a much smaller spire usually entirely covered by a callus. *Oliva similis* Marr., is evidently a variety without the callus spire. This species seems to naturally lead to the small callus-spined species, such as *mucronata* Marr., *lepida* Ducl., *todosina* Ducl., *carneola* Gmel., *tessellata* Lam., etc.

#### OLIVA CARNEOLA Gmelin.

There are entirely or partially mottled specimens of this species which seem to connect *lepida* and *todosina* with this species.

#### OLIVA MUSTELINA Duclos.

The deep suture and cylindrical form, often noticeably narrower towards the anterior, suggest an approach to *scripta*. Specimens with interrupted revolving bands constitute the var. *angustata* Marr. *O. athenia* Ducl., resembles this species in miniature.

#### OLIVA SCRIPTA Lamarck.

The suture is deep and wide. The color markings resemble *O. litterata* Lam.

## OLIVA VARIEGATA (Bolten).

*Porphyria variegata* Bolten, Mus. Boltenianum, sp. 393, p. 33, 1798.

*Porphyria reticulata* Bolten, Mus. Boltenianum, sp. 396, p. 33, 1798.

*Oliva sanguinolenta* Lam., Ann. du Mus., XVI, p. 316, 1810.

*Oliva evania* Duclos, Monogr., in Comp. Rendus, II, tab. 20, figs. 3, 4, 1836.

This species varies from the grayish-white reticulated form first referred to by Bolten, to the dark, finely reticulated olive-green var. *reticulata*. In the latter case both Bolten and Lamarck refer to the same figures by Martini (Conch. Cab., II, tab. 48, figs. 512, 513). The fasciole is always a bright orange red, the spire finely marked with brown, and the two revolving bands usually quite distinct. A number of specimens from Negros Island, Philippines, collected by Mr. E. L. Moseley, are all the var. *reticulata*, and show but little variation. Marrat is undoubtedly wrong in uniting Bolten's *variegata* with Lamarck's *tricolor*. *O. evania* is only a very light-colored example.

## OLIVA TRICOLOR Lamarck.

This species has the outline of *variegata* and not of *elegans*; it has the salmon-colored fasciole, but the color of the shell is very different from either. The dark specimens are bluish-green, with bands of a slightly darker shade—not brown; the entire shell is spotted with yellow, spire and lip coarsely marked with brown. Light-colored specimens often have bright yellow and blue spots; with the bands obsolete or wanting, such specimens often resemble *caerulea* so closely as to be only separated by the violet-colored aperture of the latter.

## OLIVA CAERULEA (Bolten).

*Porphyria caerulea* Bolten, Mus. Boltenianum, p. 33, 1798.

*Oliva episcopalis* Lamarck, Ann. du Mus., XVI, p. 313, 1810.

Although the two authors refer to different figures there seems to be no doubt as to their identity. Bolten refers to a very good figure by Martini (Conch. Cab., II, tab. 48, fig. 518), while Lamarck cites an uncolored though recognizable figure by Lister (tab. 719, fig. 3), with a description of the species. The revolving bands which are obsolete or wanting in the adult shell, are quite prominent in younger specimens which closely resemble some variations of *ispidula*.

Young specimens are also before me in which the violet color of the aperture is wanting.

*OLIVA AMETHYSTINA* (Bolten).

*Porphyria amethystina* Bolten, Mus. Bolt., p. 35, 1798.

*Voluta cruenta* (Solander) Dillw. Call, I, p. 514, 1817.

*Oliva guttata* Lam., Ann. du Mus., XVI, p. 313, 1810.

Both Bolten and Lamarck refer to the same figures by Martini (Conch. Cab., II, tab. 46, figs. 491, 492). The variation of the species is well shown by Marrat under *emicator* Meuschen (Thes. Conch., pl. 5, figs. 57-60). This species may vary from spotless to the typical form with large regular spots, or to that with large splotches and fine flecks. Many specimens show a peculiar malformation consisting of an elevated ridge at the periphery. Additional synonyms by Marrat are *aurata* Link and *mantichora* Duclos.

*OLIVA ISPIDULA* Linné.

As stated under *cærulea* varieties of this species closely resemble the younger and smaller examples of that species. The species is extremely variable, more so, perhaps, than any other, notwithstanding it is as a rule readily recognized by its brown aperture. Specimens from Samar, Philippines, collected by Mr. E. L. Mosely, are all uniform in color, representing the dark reticulated form (Marrat, Thes. Conch., fig. 248). The var. *flaveola* Duclos is yellow with a white aperture; its relation to *ispidula* is apparent from the fact that specimens frequently show a trace of the broad dark subsutural band common to many of the typical examples. This species seems to lead to the small high-spined species, including *O. flamulata* Lam., *duclosi* Reeve (*jaspidea* Ducl., non Gmel.), *rufopicta* Wienk., *kaleontina* Ducl., *australis* Ducl., *panniculata* Ducl., etc., some of which resemble species of *Olivella*.

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MOLLUSKS OF UNIONVILLE, CONN.

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BY FRANK C. BAKER.

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In June, 1909, several days were spent in the village of Unionville, and much of the time was enjoyably occupied in hunting for the lowly mollusks. As local lists from Connecticut are rare, it has been thought that a catalogue of the species obtained might be of value for the purpose of geographic distribution. Unionville is about nine miles west of Hartford.